ABSTRACT

The invention relates to methods, systems, and programming for producing and displaying subpixel-optimized images and digital content including such images. Some embodiments access digital content represented by a mark-up language and display it with its images scaled down in a subpixel-optimized manner in a format dictated by the mark-up language. Some embodiments produce subpixel-optimized images by calculating the luminosity of a subpixel in such an image as a function of the length of a plurality of coverage lines within a window in a source image corresponding to the subpixel that is covered by source image pixels having the subpixel's color. Some embodiments calculate the luminosity of a subpixel in a subpixel-optimized image as a function both of the average luminosity of pixels in the subpixel's source image window and as a function of any color balancing distribution between resulting subpixel luminosities necessary to reduce color imbala